



## **The Relationship Between the Role of the Nurse and the Level of Anxiety in Preoperative Fracture Patients at Dr. Wahidin Sudirohusodo Makassar**

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### **Abstract**

*The preoperative situation is a condition that can cause anxiety. Reducing anxiety is an important thing for nurses to do because physical and emotional stress can increase the risk of surgery. The aim of the research is to determine the relationship between the role of nurses and the level of anxiety for fracture surgery patients. The research method used is a cross-sectional method with a sampling technique using Amount sampling. The sample studied was 35 respondents who were treated in the Lontara II treatment room in the Orthopedics section of RSUP DR. Wahidin Sudirohusodo Makassar from April 18 to May 14 2009. Data was collected using a questionnaire and Chi Square statistical test analysis was carried out with a significance level  $\alpha$  of  $\leq 0.05$ . Based on the relationship test, it was found that the statistical  $p$  value =  $0.002 \leq 0.05$ , which means that there is a fairly strong relationship between the role of preoperative nurses and a reduction in anxiety levels. In this study, clients with fractures who were about to undergo surgery received preoperative care, however the number/quantity of nursing roles given to patients was not optimal as expected, and from the results of the study it was concluded that the inadequate role of nurses in preoperative patients would affect the patient's anxiety level. Based on the description above, it is important for nurses to maintain and increase their role in providing preoperative care and pay attention to the client's preoperative anxiety level. Increasing the quantity and quality of preoperative nursing services involving physical, psychological, social and spiritual aspects. It is necessary to develop/research a standard procedure that allows treatment to reduce/reduce anxiety in preoperative nursing clients.*

### **Introduction**

The state of health and illness in principle influences human behavior, humans are not always in a healthy condition. In certain circumstances, they will experience problems, both physical and psychological, so they need comprehensive treatment. Comprehensive care is care that is provided in its entirety, both bio, psycho, social and spiritual (Sajid et al., 2021; Kazlauskaitė & Angelkova, 2023). For clients who will undergo fracture surgery, providing information in advance regarding the stages of the operation will help the client in the process of carrying out the operation both physically, mentally and psychologically so as to reduce the level of anxiety for preoperative fracture patients (Conley et al., 2020; LeBoff et al., 2022). A fracture is a break in bone continuity and is determined according to the type and extent or any crack break in an intact bone. The latest research was conducted by Dr. Christoph Meier from *Boston University, Massachusetts*, United States.

The research conducted included 1020 patients diagnosed with fractures by general practitioners in England from 1994 to 2005, aged 30-89 years (<http://www.Kalbe Medikal Portal.html/2009>). The results of a study from the Bogor Research and Development Center (Puslitbang), which conducted research from 2004 - 2007 in several provinces in Indonesia, found that 24.5% of the Indonesian population experienced fractures. DR. Wahidin Sudirohusodo Makassar, is one of the referral hospitals in South Sulawesi and based on data

from the medical records of RSUP DR. Wahidin Sudirohusodo Makassar, the incidence of fractures in 2006 was recorded at around 648 people, in 2007 the incidence of fractures decreased to 523 people, and in 2008 the incidence of fractures increased to 636 people. With conditions that will result in deformed body styles due to fractures, it is necessary to take action to help a person remain in an intact body condition. In line with the development of medical science and technology today, one way to do this is through surgery on patients who have fractures. Various psychological impacts that can arise are ignorance of the surgical experience which can result in anxiety which is expressed in various forms such as anger, rejection or apathy towards nursing activities (Lailatul et al., 2021).

Nursing activities that can be carried out include identifying factors that influence the risk of carrying out surgery, assessing physical and psychological needs, and facilitating physical and psychological preparation during the pre-surgical period (Lailatul et al., 2021; Krishnamoorthy et al., 2020). Based on the data concept, thorough preparation from the nurse will ideally reduce the feeling of anxiety in the client because the preparation that has been carried out by the nurse is carried out holistically not only on the physical aspect but also on the psychological aspect which can ultimately reduce anxiety (Simpson et al., 2020; Lanahan et al., 2022; Banasiewicz et al., 2023). The formulation of the problem in this research is whether there is a relationship between the role of nurses and the level of anxiety for preoperative fracture patients at RSUP DR. Wahidin Sudirohusodo Makassar (Yildiz et al., 2021). The aim of this research is to find out the relationship between the role of nurses and the level of anxiety for preoperative fracture patients at RSUP DR. Wahidin Sudirohusodo Makassar.

## Method

This research is non-experimental research with a *descriptive analytical approach method* using a *cross-sectional design* with sampling using *Amount sampling*, where the respondent's anxiety level before the operation was measured and at the same time evaluated the quality of the preoperative nursing role that had been provided by the nurse before the operation was carried out. The samples in this study were patients treated at RSUP DR. Wahidin Sudirohusodo, with the number of respondents who met the inclusion and exclusion criteria. This research was conducted in the Lontara II treatment room in the Otrhopedi section DR. Wahidin Sudirohusodo Makassar. The data processing methods used are selecting, editing, coding and tabulating. The analysis used is univariate and bivariate analysis.

This study employed a descriptive-analytical approach with a cross-sectional design to examine the relationship between the role of nurses and the anxiety levels of preoperative fracture patients. The cross-sectional design allowed for simultaneous evaluation of anxiety levels and the quality of preoperative nursing care provided. The sampling technique used was purposive sampling, selecting patients who met the predetermined inclusion and exclusion criteria. The study was conducted in the Lontara II treatment room in the Orthopedics section of RSUP Dr. Wahidin Sudirohusodo Makassar. Data were collected from patients admitted during the study period who were scheduled for fracture surgery. A total of 35 respondents participated in the study.

Data collection tools included structured questionnaires designed to assess two variables: the quality of the nursing role in preoperative care and the patients' anxiety levels. Nurses' roles were evaluated based on their ability to address the physical, psychological, social, and spiritual needs of the patients. Anxiety levels were measured using validated anxiety assessment scales, ensuring reliability and accuracy in capturing patients' psychological states. The data were processed through a series of steps, including selecting, editing, coding, and tabulating the responses. Statistical analysis was conducted using univariate analysis to describe the data and bivariate analysis to explore the relationship between the two variables. The Chi-Square

statistical test was employed to determine the significance of the relationship, with a confidence level of  $\alpha \leq 0.05$  set as the threshold for statistical significance.

## Result and Discussion

Preoperative anxiety among fracture patients is a prevalent psychological response that can hinder optimal recovery and increase surgical risk. The nurse, as a key figure in preoperative care, is expected to provide not only physical preparation but also psychological support, ensuring that patients are mentally prepared for surgery. This study evaluates the extent to which the effectiveness of preoperative nursing roles correlates with anxiety levels among fracture patients scheduled for surgery. The findings that follow aim to illuminate this relationship by presenting quantitative data on both nursing role performance and patient anxiety indicators.

### Univariate Analysis

This analysis was carried out on each research variable, namely.

#### Independent Variable

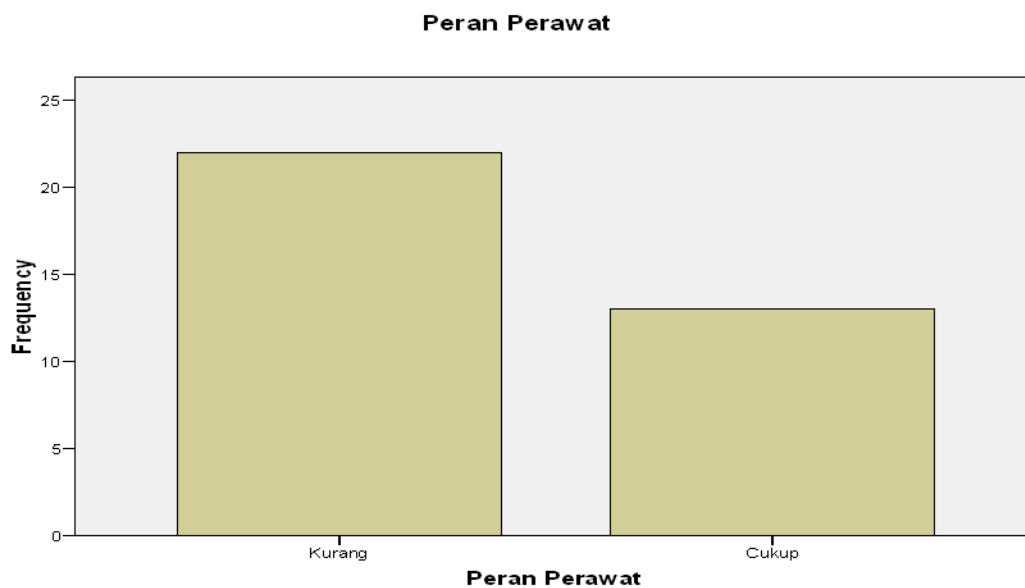
##### Nurse's Role

Table 1. Frequency of Nurse Roles for Each Respondent

Nurse's Role	Frequency	Percent (%)
Not enough	23	65.7
Enough	12	34.3
Amount	35	100.0

Source: Primary data

Diagram 2. The Role of Nurses for Each Respondent



Based on table and diagram 4.5, it shows that most of the role of nurses is lacking which is seen in patients with an Amount of 23 respondents (65.7 %), while the role of nurses is quite visible in patients with an Amount of 12 respondents (34.3 %).

Based on the role of nurses that have been carried out by the nurses in the Lontara II treatment room in the Orthopedics section of RSUP DR. Wahidin Sudirohusodo Makassar regarding clients who will have surgery, there is a picture that most of the role of nurses is lacking which is seen in patients with a Amount of 23 respondents (65.7 %), while the role of nurses is quite visible in patients with a number of respondents of 12 people (34.3 %). However, none of the respondents did not receive preoperative care. The role of nurses at different levels is possible because the data collection is still in the preoperative stages, so it is possible that the nurse's role is given to the client after data collection, and this is not followed by researchers so it is possible that the entire preoperative care process has been completed.

The role of a nurse is a way to express the activities of nurses in practice, who have completed formal education which is recognized and given authority by the government to carry out nursing duties and responsibilities professionally in accordance with the professional code of ethics (Godsey et al., 2020; Gómez et al., 2020; Melnyk et al., 2021). Nursing implementation is part of the entire nursing process which includes assessment, planning, implementation and evaluation where each of these components forms a cycle. Complete success of intradermal vaccination against hepatitis B in advanced chronic renal failure and hemodialysis patients. *Renal failure*, 19 (3), 455-460). Because the nursing process is an interpersonal process, this activity is an activity that involves nurses and clients (Siregar et al., 2021; Moghadas & Kesbakhi, 2020; Adraro & Mengistu, 2020). The mental preparation carried out by nurses towards patients is no less important in the process of preparing for surgery because a patient's mental unpreparedness or instability can affect their physical condition. Surgery is a potential or actual threat to a person's integrity that can evoke physiological and psychological stress reactions.

## Dependent Variable

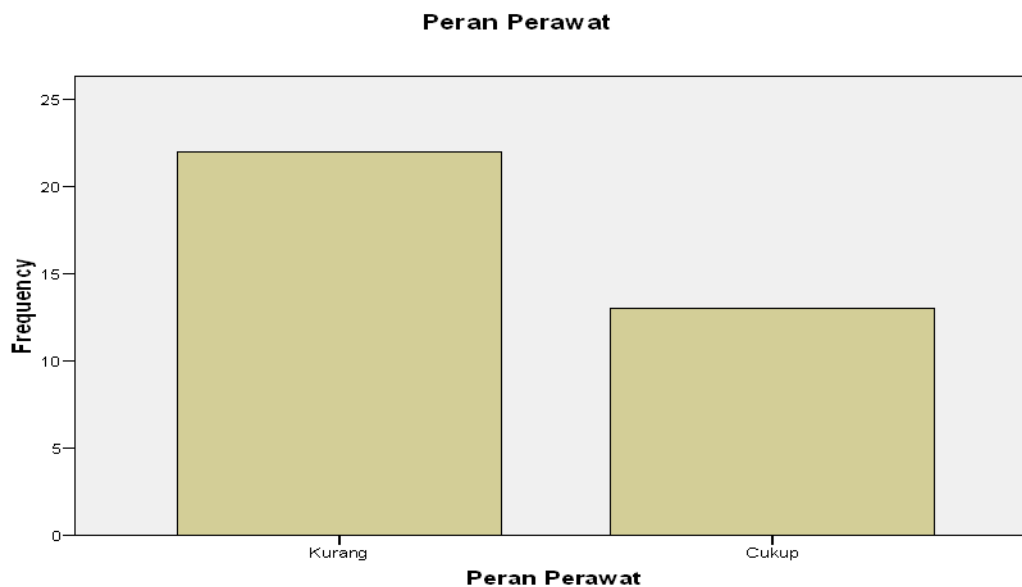
### Anxiety Level

Table 2. Frequency of Respondents Based on Level of Anxiety

Anxiety Level	Frequency	Percent (%)
Not Anxious	13	37.1
Worried	22	62.9
Amount	35	100.0

Source: Primary data

Diagram 4. 6. Respondents' Anxiety Level



it shows that clients with no anxiety were 13 respondents (37.1 %), while 22 respondents (62.9 %) experienced anxiety.

Based on the client's level of anxiety, it was found that the majority of clients experienced anxiety with a Amount of 22 respondents people ( 62.9 %) and others were not categorized as experiencing anxiety. This is in accordance with the concept that clients who will undergo surgery will experience anxiety. From the data it was also found that clients' anxiety levels varied, some did not experience anxiety and some did. This is in accordance with the opinion of Peplau (1963) in who states that anxiety can occur over a range (continuum). Anxiety is caused by several factors , namely (1) Biological/physiological factors, in the form of threats of lack of food, drink, protection and security; (2) Psychosocial factors, namely threats to self-concept, loss of loved ones/objects, changes in social/economic status; (3) Developmental factors, namely threats to the development of infancy, childhood and adolescence.

The level of anxiety in patients was seen in the number of respondents as many as 22 people (62.9 %), while clients who did not experience anxiety were seen in respondents with a Amount

of 13 people ( 37.1 %), which is a condition that seems to need to be looked at carefully because the clients who will undergo surgery will experience anxiety. Based on the research results in table 4.7, it was found that the inadequate role of nurses in preoperative patients will affect the patient's anxiety level. However, this can be explained as possibly caused by several factors: 1) The measuring instrument used is a measuring instrument to measure the degree of general anxiety so it may be less valid in measuring the degree of preoperative anxiety; 2) The level of anxiety measured is the level of anxiety that has received nursing intervention; so it is possible that the degree of anxiety that occurs has decreased due to preoperative care.

Every person has a different view of the experience of surgery so they will respond differently, but in fact everyone always experiences feelings of fear and anxiety when facing surgery. Various reasons can cause patient fear/anxiety in facing surgery (Karabulut et al., 2023; Obuchowska & Konopinska, 2021), namely (1) Fear of pain after surgery; (2) Fear of physical changes, becoming ugly and not functioning normally (body image); (3) Fear of malignancy (if the diagnosis confirmed is uncertain); (4) Fear/anxiety of experiencing the same condition as other people who have the same disease; (5) Fear/horror of facing the operating room, surgical equipment and staff; (6) Fear of dying when anesthetized/unconscious again; (7) Fear of failed surgery.

### Bivariate Analysis

Bivariate analysis was carried out on two variables that were thought to be related or correlated, in this case the independent variable (the role of the nurse) and the dependent variable (level of anxiety).

Table 3. Relationship between the role of nurses and the level of anxiety For Preoperative Fracture Patients

Nurse's Role	Anxiety Level				Amount		
	Not Anxious		Worried		n	%	
	N	%	n	%			
Not enough	4	11.4	19	54.3	23	65.7	p = 0.002
Enough	9	25.7	3	8.6	12	34.3	$\alpha = 0.05$
Amount	13	37.1	22	62.9	35	100	df = 1

After carrying out statistical tests using *the Chi Square Test* obtained p value = 0.002  $\leq 0.05$  which means that there is a relationship between the level of anxiety and the role of the nurse. Based on *the Chi Square Test* of the relationship between the role of the preoperative nurse and the level of anxiety, it was found that there was a relationship between the level of anxiety and the role of the nurse with a significance value of p = 0.002 where the value of  $\alpha \leq 0.05$  so that  $H_0$  was rejected and  $H_a$  was accepted, which means that the relationship is formed between the role of the preoperative nurse and a fairly strong level of anxiety. Theoretically, this can be explained that the role of nurses is a form of professional support and social support which can have both physical and psychological influences so that clients feel safer and ultimately anxiety can decrease (Yani & Samanik, 2023).

Apart from that, because anxiety is more of a psychological experience and more often arises due to ignorance about the consequences of surgery and the surgical procedure it self (Taschereau et al., 2022), clients who receive preoperative preparation will certainly have more understanding because preoperative preparation contains elements of preparation. psychological and at the same time a form of communication to reduce ignorance about the consequences of surgery (Beres, 2022). Anxiety occurs as a result of threats to self-existence, self-esteem, or self-identity. Anxiety can occur in people who are afraid of punishment, blame, rejection of love, relationship disruption, isolation, or loss of bodily function. one of which is

caused by surgical errors (Engel, 2023). According to Peplau, anxiety can be communicated interpersonally, therefore nurses must pay attention to and at the same time overcome personal anxiety.

## Conclusion

Based on the research results it can be concluded that, Some clients with fractures who will undergo surgery experience anxiety and some do not. From the research results, patients who experienced anxiety before pre-operation were more numerous than patients who did not experience anxiety. Clients with fractures who will undergo surgery receive preoperative care, however the number quantity of nursing roles given to patients is not optimal as expected. The inadequate role of nurses in preoperative patients will affect the level of anxiety in patients who will undergo surgery. There is a relationship between the role of nurses and a decrease in anxiety levels for preoperative fracture patients.

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